

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Xiao B. Wang

Confirmation No.:

Group Art Unit:

Serial No.:

Examiner:

Filed: January 14, 2004

Docket No.: 122001-1060

For: Isometric Primer Extension Method and Kit for Detection and Quantification of Polynucleotides

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

Sir:

This information disclosure statement is filed in accordance with 37 C.F.R. §§ 1.56, 1.97, and 1.98, and specifically:

- ☒ under 37 CFR 1.97(b), or  
(within Three months of filing national application; or date of entry of international application; or before mailing date of first office action on the merits; whichever occurs last)
- ☐ under 37 CFR 1.97(c) together with either a:  
☐ Statement Under 37 C.F.R. 1.97(e), or  
☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(After the CFR 1.97(b) time period, but before the final office action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97(d) together with a:  
☐ Statement under 37 CFR 1.97(e), and  
☐ a \$180.00 petition fee set forth in 37 CFR 1.17(p).  
(Filed after final office action or notice of allowance, whichever occurs first, but before payment of the issue fee)

Enclosed is a check in the amount of \$ . Please charge \$ to deposit account . At any time during the pendency of this application, please charge any fees required to Deposit Account 20-0778 pursuant to 37 CFR 1.25. The Commissioner is hereby requested to credit any overpayment to Deposit Account No. 20-0778.

- ☒ Applicant(s) submit herewith *Form PTO 1449A - Information Disclosure Statement by Applicant* together with copies (where required) of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may or may not be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56. As required by 37 C.F.R. §1.98(a), a legible copy of each document is provided.
- ☐ A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individual(s) designated in 37 CFR 1.56(c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on the form PTO 1449 and is enclosed herewith.

The following rights are reserved by the Applicant(s): the right to establish the patentability of the claimed invention over any of the listed documents should they be applied as reference, and/or the right to prove that some of these documents may not be prior art, and/or the right to prove that some of these documents may not be enabling for the teachings they purport to offer.

This statement should not be construed as a representation that an exhaustive search has been made, or that information more material to the examination of the present application does not exist. Any statements or identifications regarding the relevance of any portion(s) of cited references should not be construed as a representation that the most relevant portion(s) have been identified, and the absence of such statements or identifications should not be construed as representations that there are no relevant portion(s). The Examiner is specifically requested not to rely solely on the materials submitted herewith. The Examiner is requested to conduct an independent and thorough review of the documents, and to form independent opinions as to their significance.

It is requested that the information disclosed herein be made of record in this application and that the Examiner initial and return a copy of the enclosed PTO-1449 to indicate the documents have been considered.

Respectfully Submitted,

THOMAS, KAYDEN, HORSTEMEYER  
& RISLEY, L.L.P.

By:



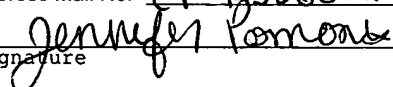
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Form PTO-1449				Attorney Docket No. 120101-1060		Serial No. N/A		
INFORMATION DISCLOSURE CITATION				Applicant Wang				
(Use several sheets if necessary)				Filing Date		Group		
U.S. PATENT DOCUMENTS								
Examiner Initials	Item	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
	A	4,965,188	10/23/90	Mullis et al.				
	B	5,710,028	1/20/98	Eyal et al.				
	C	5,846,710	12/8/98	Bajaj, S. Paul				
	D	5,849,542	12/15/98	Reeve et al.				
	E	5,885,775	3/23/99	Haff et al.				
	F	5,888,778	3/30/99	Shuber, Anthony P.				
	G	5,888,819	3/30/99	Goelet et al.				
	H	5,994,079	11/30/99	De La Rosa et al.				
	I	6,013,431	1/11/00	Söderlund et al.				
FOREIGN PATENT DOCUMENTS								
		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	J	1 101 824 A	5/23/01	Europe				
	K	0 497 527 A1	8/5/92	Europe				
	L	0 663 447 A2	7/19/95	Europe				
	M	2099426	3/9/89	Russia				
	N	97117182 A	8/20/99	Russia				
	O	SG 200103079-0	6/2/03	Australian Patent Office Search Report				
	P	SG 200103079-0	6/2/03	Australian Patent Office Written Opinion				
	Q	96/30545 A1	10/3/96	WIPO				
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)								
	A1	Botstein et al., Construction of a Genetic Linkage Map in Man Using Restriction Fragment Length Polymorphisms, AM. J. HUM. GENET 32, 314-331 (1980)						
	A2	Braun et al., Detecting CFTR gene mutations by using primer oligo base extension and mass spectrometry, CLINICAL CHEMISTRY 43:7, 1151-1158 (1997)						

A3	Collins et al., Rearrangement and Amplification of <i>c-abl</i> Sequences in the Human Chronic Myelogenous Leukemia Cell Line K-562, S.J. PROC. NATL. ACAD. SCI. USA 80, 4813-4817 (1983)
A4	Fahy et al, Multiplex Fluorescence-based Primer Extension Method for Quantitative Mutation Analysis of Mitochondrial DNA and its Diagnostic Application for Alzheimer's Disease, NUCLEIC ACID RESEARCH 25, 3102-3109 (1997)
A5	Howell et al., A Hetroplasmic LHON Family: Tissue Distribution and Transmission of the 11778 Mutation, AM. J. HUM. GENET. 55, 203-206 (1994)
A6	Joslyen et al., Identification of Deletion Mutations and Three New Genes at the Familial Polyposis Locus, CELL 66, 601-613 (1991)
A7	Kinzler et al., Identification of FAP Locus Genes from Chromosome 5q21, SCIENCE 253, 661-665 (1991)
A8	Konopka et al., An Alteration of the Human c-abl Protein in K562 Leukemia Cells Unmasks Associated Tyrosine Kinase Activity, CELL 37, 1035 (1984)
A9	Kornher et al., Mutation Detection Using Nucleotide Analogs that Alter Electrophoretic Mobility, NUCLEIC ACIDS RESEARCH OXFORD UNIVERSITY PRESS 17:19, 7779-7784 (1989)
A10	Kuppuswamy et al., Single Nucleotide Primer Extension to Detect Genetic Diseases: Experimental Application to Hemophilia B (factor IX) and Cystic Fibrosis Genes, PROC. NATL. ACAD. SCI. 88, 1143-1147 (1991)
A11	Landegren et al., A Ligase-Mediated Gene Detection Technique, SCIENCE 241, 1077-1080 (1988)
A12	Nishisho et al Mutations of Chromosome 5q21 Genes in FAP and Colorectal Cancer Patients, SCIENCE 253, 665-669 (1991)
A13	Okayama et al., Rapid, Nonradioactive Detection of Mutations in the Human Genome by Allele-Specific Amplification, J. LAB. CLIN. MED. 114, 105-113 (1989)
A14	Orita et al., Detection of Polymorphisms of Human DNA by Gel Electrophoresis as Single-strand Conformation Polymorphisms, PROC. NATL. ACAD. SCI. USA 86, 2766-2770 (1989)
A15	Piggee et al., Capillary electrophoresis for the detection of known point mutations by single-nucleotide primer extension and laser-induced fluorescence detection. J. CHROM. A 781, 367-375 (1997)
A16	Prezant et al., Trapped-Oligonucleotide Nucleotide Incorporation (TONI) Assay, a Simple Method for Screening Point Mutations, HUMAN MUTATION 1, 159-164 (1992) WILEY-LISS, INC.
A17	Saiki et al., Analysis of Enzymatically Amplified $\beta$ -globin and HLA-DQ $\alpha$ DNA with Allele-Specific Oligonucleotide Probes, NATURE 324, 163-166 (1986)
A18	Studencki et al., Discrimination among the Human $\beta^A$ , $\beta^S$ , and $\beta^C$ -GloSbin Genes Using Allele-Specific Oligonucleotide Hybridization Probes, AM. J. HUM. GENET. 37, 42-51 (1985)
A19	White et al., Chromosome Mapping with DNA Markers, SCIENTIFIC AMERICAN 28, 40-48 (1988)
A20	Wu et al., Allele-Specific Enzymatic Amplification of $\beta$ -globin Genomic DNA for Diagnosis of Sickle Cell Anemia, PROC. NATL. ACAD. SCI. 86, 2757-2760 (1989)

\* EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

EXAMINER'S SIGNATURE:

DATE CONSIDERED: